

Claim Amendments

Please amend the claims as follows:

Claims 1-32 (canceled).

33. **(currently amended)** A method of fabricating a plurality of individual chips, each of said chips having an array of chemical compounds, said method comprising:

(a) preparing a plurality of chips on a single silicon substrate, wherein each of said chips comprises an array of electronically addressable sites, each site for electronically carrying out a chemical reaction and each site comprising an electrode,

(b) applying reagents for synthesizing said chemical compounds on said substrate and utilizing said electronically addressable sites to conduct said synthesizing, and

(c) severing said single silicon substrate into individual chips wherein each of said chips comprises an array of chemical compounds synthesized in step (b).

34. **(currently amended)** A method of fabricating a plurality of individual chips, each of said chips comprising an array of oligonucleotides, said method comprising:

(a) preparing a plurality of chips on a single silicon substrate, wherein each of said chips comprises an array of electronically addressable sites, each site for electronically carrying out a part of a synthesis of oligonucleotides and each site comprising an electronic cell within said silicon substrate,

(b) applying reagents for synthesizing said oligonucleotides on said substrate and utilizing said electronically addressable sites to conduct said synthesizing, and

(c) severing said single silicon substrate into ~~said~~ individual chips wherein each of said chips comprises an array of oligonucleotides synthesized in step (b).

35. **(currently amended)** A method of fabricating a plurality of individual chips comprising oligonucleotide arrays, said method comprising:

(a) preparing a plurality of chips on a single silicon substrate, wherein each of said chips comprises an array of electronically addressable sites, each site for electronically carrying out a synthesis of an oligonucleotide of said oligonucleotides to form oligonucleotide arrays,

(b) exposing said substrate to nucleotide monomers and electronically addressing said sites to form said oligonucleotide arrays, and

(c) severing said single silicon substrate into said individual chips wherein each of said chips comprises an array of oligonucleotides formed in step (b).